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PATENT  
Attorney Docket No.: 018158-011140US  
Client Ref. No. VX-1073-C1

TOWNSEND and TOWNSEND and CREW LLP

By: Susan J. Rodriguez

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

MARC ODRICH *et al.*

Application No.: 10/600,027

Filed: June 19, 2003

For: METHOD AND SYSTEMS FOR  
LASER TREATMENT OF  
PRESBYOPIA USING OFFSET  
IMAGING

Confirmation No. 5696

Examiner: David M. Shay

Technology Center/Art Unit: 3735

REQUEST FOR REHEARING UNDER 35  
C.F.R. §41.52

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Decision rendered by the Board of Patent Appeals and Interferences ("Board") and mailed May 21, 2008, Appellant respectfully requests a rehearing with respect to the decision affirming the rejection of claims 10-15 under 35 U.S.C. § 103(a) as being obvious in view of Frey (U.S. Patent No. 6,027,494) and Largent (U.S. Patent No. 6,312,424). The following comments are respectfully submitted in order to address the points believed to be misapprehended or overlooked by the Board.

## **I. Introduction**

On May 21, 2008, a Decision on Appeal ("Decision") was issued by the Board of Patent Appeals and Interferences ("Board") in connection with the above-referenced patent application. In the Decision, the Board reversed the Examiner's rejections of claims 1-9 as failing to comply with the written description requirement under 35 U.S.C. §112, first paragraph. Appellant believes, however, that the Board erred in affirming the Examiner's rejection of claims 10-15 under 35 U.S.C. §103(a) as allegedly obvious in view of references to Frey (US 6,027,494) and Largent (US 6,312,424).

In accordance with 37 C.F.R. 41.52, Appellant respectfully requests a rehearing of the decision issued 5/21/08 of the rejection of claims 10-15 under 35 U.S.C. §103(a). Briefing in this case was completed prior to the Supreme Court rendering the opinion in *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 ("KSR"), which was relied on heavily by the Board in reaching their Decision. Accordingly, Appellant had no opportunity to address the Examiner's rejection of claims 10-15 in the present case in light of the KSR decision and request rehearing, in part, on this basis. Moreover, rehearing is further appropriate as there are various points of law and fact that the Board appears to have misapprehended or overlooked in rendering the Decision. In particular:

1. The Board appears to have misapprehended or overlooked the scope and content of the prior art, in particular, differences between the prior art and the claimed invention. This appears to be a misapprehension as the Board appears to have agreed with Appellants that the prior art does not teach each element of the claimed invention as recited in claim 10 and yet found claims 10-19 obvious in view of the prior art (e.g., Decision, p. 18-19).
2. The Board appears to have misapprehended or overlooked proper application of the KSR decision in using "common sense" alone to supply a claim element that is wholly missing from the prior art.

3. The Board appears to have misapprehended or overlooked what a skilled artisan at the time of the invention having "common sense" and/or ordinary creativity would, in fact, have reasonably inferred from the teachings of the prior art. There is no evidence or prior art present in the record, and cited by either the Board or the Examiner, to support modifying the combination of Frey and Largent to supply a missing element through inference or "common sense."
4. The Board appears to have misapprehended or overlooked the requirement that a conclusion of obviousness be supported by some articulated reasoning with some rational underpinning.

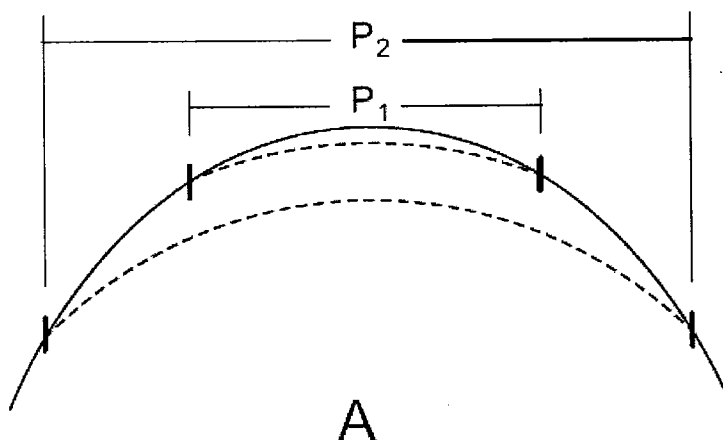
## **II. Where References In Combination Do Not Supply Every Element Of A Claim, They Cannot Render The Claim Obvious**

In the Decision, the Board appears to have misapprehended or overlooked the fact that differences between the cited prior art and the claimed invention prevent a finding of obviousness. A case of obviousness requires ascertaining the scope and contents of the prior art, level of ordinary skill in the art, the differences between the cited references and the claims at issue, and any objective indicia of non-obviousness. *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966); *KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727. The Board cited two prior art references in its Decision: Frey and Largent. Frey is generally directed to a system for reshaping an outer diameter based on the dilated or dark adapted pupil size so as to address night halos. Largent is generally directed to applying a multifocal ablation zone irrespective of individual pupil size. Even when combined, Frey and Largent do not meet every element of Claim 10 because the combination does not teach, at least, "determining the distribution of laser beam pulses to ablate the first and second regions of the multifocal ablation shape, wherein the distribution is determined in response to a signal related to a size of the patient's pupil."

Turning first to Frey, the reference teaches a system for reshaping a cornea of an eye by first determining the dark adapted pupil size of the eye and then reshaping the cornea based on the dilated or dark adapted pupil size. The purpose of the system of Frey is to customize the ablation zone of the patient's dark adapted pupil size to eliminate the halo problem arising when the laser-treated corneal region/optical zone is smaller than the dilated pupil diameter (col. 1, lines 40-45; col. 4, lines 23-25). In particular, Frey teaches that the diameter of the optical zone ablated on the cornea is adjusted to "match," or nearly match, the diameter of the dilated pupil (col. 2, lines 57-60). The ablation profile at the periphery of the optical zone may be tapered to form a smooth transition between treated and untreated portions of the eye (col. 2, lines 60-62). The concept of optical zone/pupil size matching according to Frey is shown in Illustration A<sup>1</sup>, below. As shown in Illustration A, a pupil with diameter  $P_1$  would have a different ablation diameter than a pupil with diameter  $P_2$  according to the Frey teaching. Matching an optical zone/ablation shape to different pupil sizes according to Frey simply changes the relative diameter (or outer periphery) and any accompanying change in depth of the ablation zone with respect to  $P_1$  and  $P_2$ , but the ablation profile shape/geometry remains constant (see, e.g., col. 3, lines 20-38; col. 4, lines 10-22).

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<sup>1</sup> It is noted that the following sketch illustrations (Illustrations A-C) are not explicitly found in the cited references, but submitted by Appellant in order to visually illustrate and further support remarks that have previously made of record, and explained further herein.



Largent has a different focus. It teaches vision correction via shaping multiple regions of a cornea to provide vision correction at multiple corresponding distances. Rather than a curve as depicted by the dotted lines in Illustration A, above, the multi-focal ablation region taught by Largent includes a central region circumscribed by coaxial annular regions (see, e.g., Figure 2 of Largent, reproduced below).

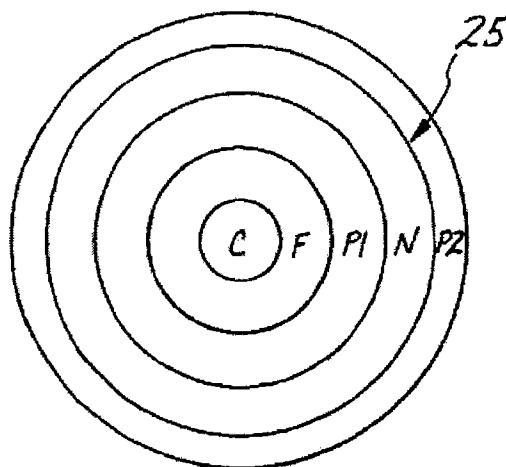
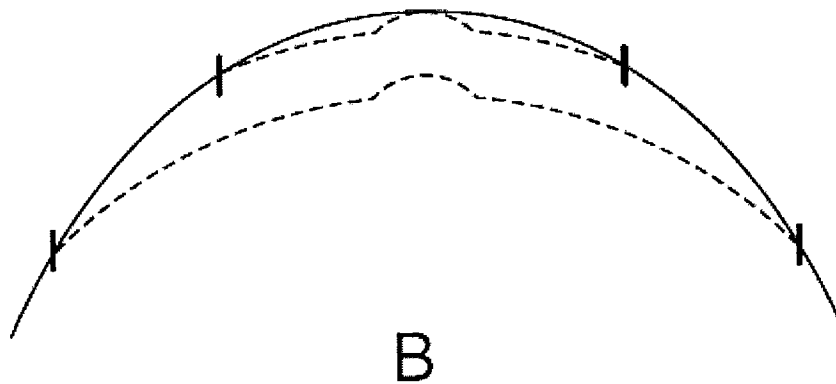


Figure 2 of Largent

A side view illustration of a simplified two-zone multi-focal ablation applied to a cornea is shown in Illustration B, which is discussed below.

As previously recognized by the Examiner and the Board, Largent does not teach measuring pupil size or adjusting any of the ablation zones or annular regions based on a patient's individual pupil size.

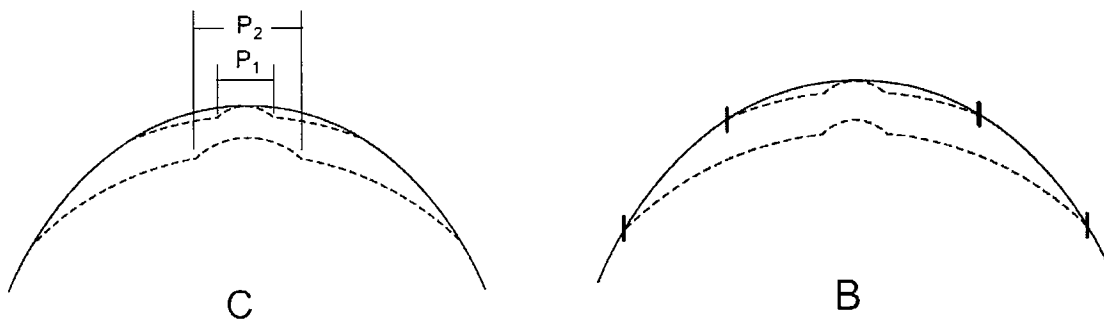
The combination of Frey and Largent would result in a fundamentally different result than the system of Claim 10. Even if there were a reason to combine Frey and Largent (which, as discussed below, there is not), Frey would simply counsel that the outer diameter of the Largent multi-focal ablation region may be modified to “match” the dark-adapted pupil diameter; it would not counsel any modification to the inner ablation regions. Indeed, there would be no reason to modify the inner regions of the Largent multi-focal ablation region, as the inner regions would not cause the halo effect as long as the outer diameter matched the dark adapted pupil size. An illustration of the likely outcome of the combination of Frey and Largent is depicted in Illustration B, below.



In this illustration, the *shape* of the ablated region is the same regardless of pupil size. The only difference drawn from Frey is that the outer periphery of the ablation region of P<sub>2</sub> (illustrated as the larger region of Illustration B) is larger than the outer periphery of P<sub>1</sub> (smaller region of Illustration B) and the ablation depth might be altered based on pupil size. Nothing in Frey alone

or in combination with Largent teaches "scaling" an ablation shape on a cornea or otherwise adjusting multiple ablation regions/shapes (as opposed to just the outer diameter) in response to pupil size.<sup>2</sup> Moreover, the Board has identified no teachings or reasons to alter such an inner ablation region shape/profile, in such a combination of Frey and Largent. In fact, doing so would be unnecessary to maintain the Board's stated purpose of Largent - i.e., applying a multifocal correction (Decision, p. 19). Nor would altering the inner ablation region shape do anything to address the problem of halos due to a dark adapted pupil size extending beyond the overall optical zone - i.e., the problem with which Frey is concerned.

Applying the pupil matching of Frey to the multi-region ablation of Largent, thus, would not teach the system of Claim 10 (depicted below in Illustration C, below, left).<sup>3</sup> In particular, the prior art combination (depicted in Illustration B, below, right) would not involve adjusting or scaling multiple ablation regions based on pupil size, in contrast to the system of Claim 10 (shown in Illustration C below, left), in which the ablation shape profile, including inner ablation regions and outer optical zone periphery are adjusted or scaled in response on pupil size.



<sup>2</sup> The term "scaling" as used previously with respect to Frey might incorrectly imply action where a change to one aspect of an ablation shape would cause all other aspects of the shape to change in a proportional manner. This type of shape adjustment, however, is not taught or suggested anywhere in Frey. In fact, nowhere in Frey is the term "scaling" used. Instead, Frey teaches adjusting just the outer diameter of the optical zone ablated on the cornea to "match, or nearly match, the diameter of the dilated pupil." (Frey col. 2, lines 57-60, emphasis added; see also, col. 3, lines 30-32; claim 1).

<sup>3</sup> The failure of the prior art in teaching these elements of the claimed invention is supported by a plain reading of the cited references and has been pointed out by Appellant on numerous occasions throughout prosecution (see, e.g., Applicants Response 10/24/2005, pp. 6-8; Appellant's Appeal Brief, pp. 9-11; Appellant's Reply Brief, p. 8). In reviewing the current record, Appellant does not find a single instance where this has been rebutted by either the Board or the Examiner.

As shown in the illustration above, the system of Claim 10 differs from the combination of Frey and Largent in a critical way. In addition to adjusting the outer diameter and depth of the ablation region (the most that the combination would teach or suggest), the inner ablation region shape in the system of Claim 10 is further adjusted in response to pupil size. This difference is critical and must have been misapprehended by the Board, as it should have prevented a finding of obviousness, since the combination of Frey and Largent does not satisfy the element of Claim 10 of “determining the distribution of laser beam pulses to ablate the first and second regions of the multifocal ablation shape, wherein the distribution is determined in response to a signal related to a size of the patient’s pupil.”

The contention that the prior art combination (depicted in Illustration B, above) would not involve adjusting or scaling multiple ablation regions based on pupil size, in contrast to the system of Claim 10 (e.g., as shown in Illustration C, above), is further supported by the fact that neither reference provides any teachings on how adjustments to the multiple regions might be accomplished even if attempted (even though there would be no reason to do so). Neither Frey nor Largent provides any guidance on how to shape an inner ablation region in response to pupil size.

In contrast to the teachings of the cited references, the present application does provide guidance on this issue. Attention is respectfully drawn, for example, to paragraphs 0026, 0060, 0068-0071 of the published application and corresponding figures. The below listed cut profile equation, for example, is provided in the current specification for shaping multiple regions of a multifocal ablation shape in response to a patient's pupil size:

$$C(r)=(d/\pi)\sum i(n_i\theta(r))$$

The specification of the current application provides, inter alia, the following guidance on scaling a multifocal ablation shape in response to dimensions of a patient's pupil:

Preferably, the refractive correction of cut profile  $C(r)$  is scaled to match a dimension of the pupil. This scaling may be achieved by appropriately varying the refractive correction entered into the hyperopic lens equation. For example, consider the scaling of an ablation for a 5 mm pupil compared to a 4 mm pupil. If the aspheric surface includes a 1.5D ablated



curvature 1.25 mm from the aspheric lens center for the 5 mm pupil, this 1.5D curvature will be ablated 1.0 mm from the aspheric lens center on a 4 mm pupil. This scaling maintains a balance of near and far-vision correction by accommodating individual variability in pupil size. By scaling the cut profile  $C(r)$ , the scaling of the ablated optical zone is incorporated into the laser treatment table.

These aspects of the claimed invention as recited in claim 10 and described throughout the specification as originally filed, as well as the corresponding advantages in maintaining a more optimal balance of near and far-vision correction by accommodating individual pupil size variability, are simply not taught in the cited references taken either alone or in any reasonable combination.

In sum, the combination of Frey and Largent does not satisfy the element of Claim 10 of “determining the distribution of laser beam pulses to ablate the first and second regions of the multifocal ablation shape, wherein the distribution is determined in response to a signal related to a size of the patient’s pupil.” This critical difference between the claimed invention and the prior art should have prevented a finding of obviousness.

### **III. “Common Sense” Cannot Supply A Missing Element**

As stated above, and previously made of record, the combination of Frey and Largent does not teach or suggest each and every element of the invention as recited in claim 10, in particular, “determining the distribution of laser beam pulses to ablate the first and second regions of the multifocal ablation shape, wherein the distribution is determined in response to a signal related to a size of the patient’s pupil,” thereby precluding a case of *prima facie* obviousness of Claim 10.

The Board does not dispute that the stated aspects of claim 10 are missing from the teachings of Frey and Largent, and neither the Board nor the Examiner have rebutted Appellants showing that the stated elements of claim 10 are not taught in the prior art. Instead, the Board, at page 19 of the Decision, states the following:

We do not find Appellants' arguments persuasive. As pointed out above, the Supreme Court recently noted that the analysis under 35 U.S.C. § 103 "need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007).

In the instant case, we agree with the Examiner that one of ordinary skill in the art using Frey's system, being a person of ordinary creativity and common sense, *KSR*, 127 S. Ct. at 1742-43, would have reasonably inferred from Largent that it was desirable to reshape Frey's pupil-sized corneal optical zone into separate regions that corrected for both near and far vision, in patients requiring those vision corrections.

Thus, the Board does not dispute Appellant's contention that the combination of Frey and Largent would not teach each element of claim 10, but instead appears to substitute "ordinary creativity and common sense," rather than the teaching in the prior art, to supply the missing elements.

Appellant respectfully disagrees and submits that the Board's interpretation of the Supreme Courts opinion in *KSR*, and corresponding position regarding the claimed invention, are misplaced. *KSR*, and particularly the provision of *KSR* cited by the Board, simply does not support the proposition that a factfinder need not find precise teachings of claim elements, either in cited references or elsewhere in the art, when evaluating whether a claimed invention would be non-obvious. Moreover, *KSR* certainly does not permit claim elements missing from the prior art to be supplied by either the Board's or the Examiner's opinion of what constitutes "common sense," particularly where there is no evidence in the record to support such an opinion. Rather, *KSR*, including the quoted provision, supports the more modest proposition that one need not seek out precise teachings when determining whether there would be a motivation to combine elements that have already been identified as being known in the prior art. The proper interpretation of *KSR* is apparent when the provision quoted by the Board is read in full context. In particular, the Supreme Court stated:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, *all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.* To facilitate review, this analysis should be made explicit. See *In re Kahn*, 441 F.3d 977, 988 (C.A.Fed.2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”). As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

*KSR* at 1740-41 (emphasis added). Thus, the statement in *KSR* that one “need not seek out precise teachings” pertains to whether there is a motivation/rationale for combining elements already identified as being known in the art or taught by cited references. The Court did not supplant the requirement that all elements of the claim be found in the prior art combination.

Neither *KSR* nor post-*KSR* Federal Circuit and District Court decisions permit a finding of obviousness in the absence of evidence showing all claim elements are present in the prior art. The recent Federal Circuit decision in *Omegaflex, Inc. v. Parker-Hannifin Corp.*, for example, illustrates that the proper interpretation of the “need not seek out precise teachings” language of *KSR* applies to motivation to combine known elements, not in supplying claim elements missing wholly from the prior art. *Omegaflex*, 243 Fed. Appx. 592 (Fed. Cir. 2007). In *Omegaflex*, the Court had already determined that all claim elements were taught in a prior art combination. *Id.* at 593-94. It was in the context of reviewing the record for motivation to combine those known elements that the Federal Circuit applied the *KSR* principle so that it need not necessarily seek out precise teachings in the combined references themselves to supply the motivation, but rather that motivation can come from knowledge in the art. *Id.* at 595-96. Applicant submits this is the proper application of the Board’s quoted *KSR* language – solely in the context of the motivation inquiry.

Numerous District Court decisions also follow this proper interpretation. *See, e.g., Therasense, Inc. v. Becton Dickinson and Co.*, --- F. Supp.2d ----, 2008 WL 931223 (N.D. Cal. 2008), at p. 34; *Tokyo Keiso Co., Ltd. v. SMC Corp.*, 533 F. Supp.2d 1047 (C.D. Cal. 2007), at 1057-58; *Eaton Corp. v. ZF Meritor LLC*, 2008 WL 920073 (E.D. Mich. 2008), at p. 6; *Shuffle Master, Inc. v. MP Games LLC*, 2008 WL 819967 (D. Nev. 2008), at pp.16-17.

Despite the misplaced reliance on *KSR* noted above, Appellant generally agrees that a non-obviousness inquiry may in some instances reach beyond explicit teachings of a cited reference where certain material is nonetheless demonstrated as well-known in the art. However, characterizing a missing claim element as well-known in the art requires some supporting evidence; obviousness cannot be found based solely on what the Board or the Examiner might view as "common sense," particularly without any evidence supporting that proposition. A showing of evidence is still required to establish obviousness where claim features not disclosed by the cited references are considered already well-known at the time of invention. *See, e.g., Leapfrog Enterprises Inc. v. Fisher-Price Inc.*, 485 F.3d 1157 (Fed. Cir. 2007); *In re Translogic Tech., Inc.*, 504 F.3d 1249 (Fed. Cir. 2007); *Scanner Tech. Corp. v. Icos Vision Sys. Corp.*, --- F.3d ---, 2008 WL 2468487 (Fed. Cir. 2008). In each of these cases, the Federal Circuit found that where a claim element is missing from the cited references, obviousness is found *only* where evidence exists that the feature not explicitly disclosed by the cited reference(s) was shown to be well-known at the time of invention.

In the present case, no evidence has been presented or has been made of record to indicate that the aspects of the claimed invention missing from the combined teachings of Frey and Largent would have been recognized as well-known to those of ordinary skill in the art at the time of the invention. In particular, neither the cited references, nor anything else identified in the prior art, would have taught "determining the distribution of laser beam pulses to ablate the first and second regions of the multifocal ablation shape, wherein the distribution is determined in response to a signal related to a size of the patient's pupil," as recited in claim 10.

Accordingly, and in view of the above discussion, where the prior art fails to teach or suggest each element of the claimed invention, a case of obviousness cannot be found. This basis alone provides ample reason for the Board to reverse the Examiner's rejection of claims 10-15 under 35 U.S.C. § 103, and a decision to this effect is respectfully requested.

**IV. Even If “Common Sense” Could Supply A Missing Claim Element, Common Sense Would Not Have Supplied The Missing Element Of Claim 10 In This Case**

Even if the Board persists in its position that *KSR* permits satisfaction of a claim element through “common sense” in addition to combined prior art references, common sense here would not have supplied the missing element of Claim 10. The Decision provides in relevant part:

In the instant case, we agree with the Examiner that one of ordinary skill in the art using Frey's system, being a person of ordinary creativity and common sense, *KSR*, 127 S. Ct. at 1742-43, would have reasonably inferred from Largent that it was desirable to reshape Frey's pupil-sized corneal optical zone into separate regions that corrected for both near and far vision, in patients requiring those vision corrections. Because failing to include both of Largent's reshaped corrective regions within Frey's pupil-sized optical zone would have defeated the purpose of Largent's multifocal correction, we agree with the Examiner that one of ordinary skill using Frey's system would have been prompted to modify the system with instructions directing the processor to determine the multifocal correction based on the optimal pupil-sized operative zone.

First, Appellant is somewhat unclear whether the Board believes that reshaping each correction zone of Largent would be necessary to maintain the "purpose" of Largent and, if so, the exact basis for this position is unclear. As discussed above and with reference to Illustration B, assuming for argument's sake only that one of skill were to attempt to combine the references so as to employ the pupil matching of Frey to the multi-region ablation shape of Largent, common sense would simply direct a skilled artisan to adjust the outer periphery of the ablation region and any accompanying change in ablation depth, not the inner ablation region

shape/profile, as shown in Illustration C. Such an application of common sense most naturally flows from a plain reading of the cited references, as it would maintain the Board's stated purpose of Largent of applying a multi-focal correction to the cornea, while addressing the dark adapted pupil halo concern of Frey.

In contrast, the idea of first combining the references and then further modifying the teachings by adjusting inner ablation regions of the Largent correction in response to pupil size would not be supported by a common sense reading of the references at least for several reasons. First, scaling an inner ablation region shape would not address the problem of dark adapted pupil halos with which Frey is concerned so there would be no common sense reason to scale the inner ablation region shape.

Second, the record simply has not been developed on the issue of what one of ordinary skill might consider common sense so as to reach a conclusion of obviousness on this basis. For example, it was well known to those of ordinary skill in the art that the coaxial annular regions of the Largent are designed to accommodate varying pupil size due to lighting conditions - the dilating/expanding pupil allows differential directing of light through different annular regions of the ablation zone and to the retina. Thus, an option of adding one or more additional annular regions to expand the multifocal ablation shape of Largent (e.g., and cover a greater ablation zone) might more logically flow from the teachings of the reference than the proposed scaling (i.e., taught only in Appellant's application - hindsight).

Third, neither reference provides any teachings on how the proposed adjustments to the multiple annular regions of the Largent correction would even be accomplished upon hypothetical combination and further modification of the references as suggested. Neither Frey nor Largent provides any guidance on how to shape an inner ablation region scaled to patient pupil size. Common sense certainly would not provide the necessary algorithm or system operating instructions/programming. Finding no guidance on this issue, it is entirely unclear how common sense alone could possibly supply the missing element of Claim 10 from the combination of Frey and Largent of "distribut[ing] a series of laser beam pulses to ablate a

multifocal shape on the eye, where at least a first and second ablation regions are determined in response to pupil size.”

In contrast to the teachings of the cited references, the present application does provide guidance on this issue. Specifically, the present application teaches a system for treating a cornea of an eye of a patient to mitigate presbyopia with a multifocal ablation shape where laser beam pulses are distributed to ablate the first and second regions of the multifocal ablation shape, and wherein the distribution of pulses for both the first and second regions is determined in response to a signal related to a size of the patient's pupil. Attention is respectfully drawn to paragraphs 0026, 0060, 0068-0071 of the published application and corresponding figures. The specification of the current application provides, inter alia, the following guidance on scaling a multifocal ablation shape in response to dimensions of a patient's pupil:

Preferably, the refractive correction of cut profile  $C(r)$  is scaled to match a dimension of the pupil. This scaling may be achieved by appropriately varying the refractive correction entered into the hyperopic lens equation. For example, consider the scaling of an ablation for a 5 mm pupil compared to a 4 mm pupil. If the aspheric surface includes a 1.5D ablated curvature 1.25 mm from the aspheric lens center for the 5 mm pupil, this 1.5D curvature will be ablated 1.0 mm from the aspheric lens center on a 4 mm pupil. This scaling maintains a balance of near and far-vision correction by accommodating individual variability in pupil size. By scaling the cut profile  $C(r)$ , the scaling of the ablated optical zone is incorporated into the laser treatment table.

These aspects of the claimed invention as recited in claim 10 and described throughout the specification as originally filed, as well as the corresponding advantages in maintaining a more optimal balance of near and far-vision correction by accommodating individual pupil size variability, are simply not taught in the cited references taken either alone or in any reasonable combination, nor are they “common sense.”

In sum, as set forth in the sections above, where the prior art fails to teach or suggest each element of the claimed invention, a case of obviousness cannot be found. The recent KSR decision does not permit claim elements missing from the prior art to be supplied by either the

Board's or the Examiner's opinion of what constitutes common sense, particularly in the absence of evidence of record to support such an opinion. Even if "common sense" could supply a missing claim element, common sense, in the present case, would not have supplied the missing element of current claim 10. Should the Board maintain the position as set forth in the Decision, Appellant respectfully requests further clarification of how it is believed common sense would have rendered the invention of claim 10 obvious, such that Appellant may both understand the exact basis of such a position, and more directly address the Board's finding.

**V. It Appears The Board Either Misapprehended Or Overlooked The Requirement That It Articulate Some Rationale For Its Obviousness Combination**

Appellant respectfully submits that the Board appears to have either misapprehended or overlooked the requirement that, in order to establish a *prima facie* case of obviousness, the Examiner must set forth some articulated reasoning or logical rationale supporting a proposed combination of prior art and the resulting conclusion of obviousness. Such a requirement is clearly expressed in the recent *KSR* decision. While finding a teaching, suggestion, or motivation to combine references explicitly stated in the prior art is not strictly required, the Court stated that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR Intern. Co. v. Teleflex Inc.*, at 1741. And "[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning." *Id.* at 1742. Upholding the requirement that the Examiner, during prosecution, provide a clearly articulated rationale with logical underpinnings both guards against the distortion caused by hindsight analysis, and allows for more efficient prosecution and analysis of patent applications by providing an applicant with a clear understanding of the concerns of the Patent Office that may be addressed in subsequent response.



As discussed above, the Board's finding of obviousness appears to be contrary to the *Graham* and *KSR* decisions because the combination of prior art references does not meet all elements of Claim 10, there is no support in *KSR* for supplying the missing element through "common sense" and, even if common sense were applied, it would counsel against the missing element. Given the strong case against a finding of obviousness, a clear rationale for the Board's decision is even more critical in this case. Appellant maintains, both for reasons previously made of record (*see, e.g.*, Appellant's Appeal Brief, pages 11-13) as well as those set forth herein, that no rationale or articulated reasoning has been provided to support the resulting conclusion of obviousness.

In its appeal, Appellant identified as a concern the lack of rationale or articulated reasoning set forth by the Examiner to support the proposed combination of references (*e.g.*, Appeal Brief, pp. 13-15; Reply Brief, p. 7). In response to Appellant's remarks regarding lack of rationale to combine the cited references as proposed by the Examiner, at page 20 of the Decision, the Board stated the following:

Appellants do not point to, nor do we see, any evidence that Frey's system would not have been adaptable to Largent's process.

The Board's comment appears to place the burden of proving non-obviousness upon Applicant. However, a non-obviousness inquiry does not begin with the assumption that a claimed invention is obvious, with the applicant bearing the burden of proving non-obviousness. Just the opposite, the PTO bears the initial burden of establishing *prima facie* obviousness, which includes providing a rationale for combining teachings of cited references. Where no articulated basis is provided to explain what would have led the skilled artisan at the time of the invention to the claimed invention as a whole, it is inferred that hindsight was improperly used to conclude that the invention was obvious. *In re Kahn*, 441 F.3d 977, 986; *see also, KSR Intern. Co. v. Teleflex Inc.*, 127 S. Ct. 1727 at 1741-1742.

In the present case, the Examiner offered only conclusory statements during prosecution to support the proposed combination (*see, e.g.*, Final Office Action, p. 4). Appellant submits that

such conclusory comments do not constitute a clearly articulated rationale to combine the cited references, and certainly not to establish a case of *prima facie* obviousness requiring Appellant to come forth with rebuttal evidence.


Regardless of the whether the cited references could be combined, Appellant has provided ample rebuttal evidence to overcome any *prima facie* showing. As addressed at length here and elsewhere in the record, the proposed combination of the cited references to Frey and Largent, even if proper to combine, would still fail to teach or suggest each and every element of the claimed invention.

### CONCLUSION

In view of the foregoing, and for the reasons set forth above, the Office has failed to establish a *prima facie* case of obviousness with respect to the claimed invention, because no articulated rationale for combining the cited references was established and, even if combined, the cited references of Frey and Largent would still fail to teach each and every element of the claimed invention as recited in any of claims 10-15. Accordingly, Appellant believes that the appealed claims of 10-15 would not have been obvious under 35 U.S.C. § 103(a) in view of the prior art and respectfully request that the rejections of claims 10-15 be reversed and the claims allowed.

Respectfully submitted,

Dated: 7/21/2008

  
Michael T. Rosato  
Attorney for Appellant  
Reg. No. 52,182

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, Eighth Floor  
San Francisco, California 94111-3834  
Tel: 925-472-5000  
Fax: 415-576-0300  
MTR:slr  
61424754 v3